```
  * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 11:55:20 ON 15 JAN 2004

=> file agricola biosis embase caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'AGRICOLA' ENTERED AT 11:55:34 ON 15 JAN 2004

FILE 'BIOSIS' ENTERED AT 11:55:34 ON 15 JAN 2004
COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'EMBASE' ENTERED AT 11:55:34 ON 15 JAN 2004
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'CAPLUS' ENTERED AT 11:55:34 ON 15 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> s bombardment and transform? and optimiz?
L1          229 BOMBARDMENT AND TRANSFORM? AND OPTIMIZ?

=> duplicate remove l1
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, EMBASE, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n

PROCESSING COMPLETED FOR L1
L2          152 DUPLICATE REMOVE L1 (77 DUPLICATES REMOVED)

=> s l2 and maize
L3           16 L2 AND MAIZE

=> d l3 1-16 ti

L3   ANSWER 1 OF 16  AGRICOLA  Compiled and distributed by the National
     Agricultural Library of the Department of Agriculture of the United States
     of America.  It contains copyrighted materials.  All rights reserved.
     (2004) on STN
TI   Green-fluorescent protein facilitates rapid in vivo detection of
     genetically   ***transformed***   plant cells.

L3   ANSWER 2 OF 16  AGRICOLA  Compiled and distributed by the National
     Agricultural Library of the Department of Agriculture of the United States
     of America.  It contains copyrighted materials.  All rights reserved.
     (2004) on STN
TI   Transgenic Italian ryegrass (Lolium multiflorum) plants from
     microprojectile   ***bombardment***   of embryogenic suspension cells.

L3   ANSWER 3 OF 16  AGRICOLA  Compiled and distributed by the National
     Agricultural Library of the Department of Agriculture of the United States
     of America.  It contains copyrighted materials.  All rights reserved.
     (2004) on STN
```

COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'CAPLUS' ENTERED AT 12:26:00 ON 16 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> s maize and bombardment and embryo and immature and fresh
L1 3 MAIZE AND BOMBARDMENT AND EMBRYO AND IMMATURE AND FRESH

=> d l1 1-3 ti

L1 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI A comparison of methods for direct gene transfer into ***maize*** (Zea mays L.).

L1 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
TI Establishment of a genetic transformation system for ***maize*** inbred P9-10

L1 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
TI A comparison of methods for direct gene transfer into ***maize*** (Zea mays L.)

=> d l1 1-2 ibib ab

L1 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1998:433838 BIOSIS
DOCUMENT NUMBER: PREV199800433838
TITLE: A comparison of methods for direct gene transfer into ***maize*** (Zea mays L.).
AUTHOR(S): Southgate, E. M.; Davey, M. R. [Reprint author]; Power, J. B.; Westcott, R. J.
CORPORATE SOURCE: Plant Res. Group, Dep. Life Science, Univ. Nottingham, University Park, Nottingham NG7 2RD, UK
SOURCE: In Vitro Cellular and Developmental Biology Plant, (July-Sept., 1998) Vol. 34, No. 3, pp. 218-224. print.
CODEN: IVCPEO. ISSN: 1054-5476.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Oct 1998
Last Updated on STN: 7 Oct 1998

AB Techniques for transforming intact tissues of cereals were evaluated for their efficacy in transforming ***immature*** ***embryos*** and Type II callus of ***maize*** (Zea mays L.). The techniques used were particle ***bombardment*** , tissue electroporation, tissue electrophoresis, and silicon carbide fibers. Each method was assessed in terms of transient beta-glucuronidase (GUS) expression. High levels of GUS expression were observed in A188 Type II callus using both tissue electroporation and particle ***bombardment*** , with means of 417.8 and 954.5 blue expression units (beu) per g ***fresh*** weight (FW) callus, respectively. Only particle ***bombardment*** resulted in high transient gene expression in ***immature*** ***embryos*** , with a mean transformation frequency of 34.8 b.e.u. per ***embryo*** . Very low levels of GUS expression were achieved with silicon carbide-mediated gene transfer, even when employing tissues used in the

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.18	29.73

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.69

FILE 'AGRICOLA' ENTERED AT 12:31:41 ON 16 JAN 2004

FILE 'BIOSIS' ENTERED AT 12:31:41 ON 16 JAN 2004
COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'EMBASE' ENTERED AT 12:31:41 ON 16 JAN 2004
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'CAPLUS' ENTERED AT 12:31:41 ON 16 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> s transformation and maize and particle and embryo and immature
L6 38 TRANSFORMATION AND MAIZE AND PARTICLE AND EMBRYO AND IMMATURE

=> dplicate remove l6
DPLICATE IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> duplicate remove l6
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L6
L7 21 DUPLICATE REMOVE L6 (17 DUPLICATES REMOVED)

=> d l7 1-10 ibib ab

L7 ANSWER 1 OF 21 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 1

ACCESSION NUMBER: 2003:42972 AGRICOLA
DOCUMENT NUMBER: IND23332513
TITLE: Gametic ***embryos*** of ***maize*** as a target for biolistic ***transformation*** : comparison to ***immature*** zygotic ***embryos*** .
AUTHOR(S): Aulinger, I.E.; Peter, S.O.; Schmid, J.E.; Stamp, P.
AVAILABILITY: DNAL (QK725.P54)
SOURCE: Plant cell reports, Feb 2003. Vol. 21, No. 6. p. 585-591
Publisher: Berlin : Springer-Verlag.
CODEN: PCRPD8; ISSN: 0721-7714
NOTE: Includes references
PUB. COUNTRY: Germany
DOCUMENT TYPE: Article

result in loss of user privileges and other penalties.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:04:28 ON 15 JAN 2004

=> file agricola biosis embase caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'AGRICOLA' ENTERED AT 10:04:45 ON 15 JAN 2004

FILE 'BIOSIS' ENTERED AT 10:04:45 ON 15 JAN 2004
COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'EMBASE' ENTERED AT 10:04:45 ON 15 JAN 2004
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'CAPLUS' ENTERED AT 10:04:45 ON 15 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> s immature(w)maize(w)embryo and microprojectile
L1 3 IMMATURE(W) MAIZE(W) EMBRYO AND MICROPROJECTILE

=> d l1 1-3 ibib ab

L1 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:1004361 CAPLUS
DOCUMENT NUMBER: 140:1574
TITLE: Methods for transformation and regeneration of immature corn embryos
INVENTOR(S): Ranch, Jerome P.; Marsh, Wallace A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002120961	A1	20020829	US 2001-993080	20011113

PRIORITY APPLN. INFO.: US 2000-248427P P 20001114

AB Methods are provided for transforming freshly isolated, ***immature*** ***maize*** ***embryos*** and for producing transgenic maize plants.

The immature corn embryos are obtained 6 to 14 days following pollination. The methods comprise obtaining immature embryos from a maize plant, contacting the embryos with an auxin-depleted or phytohormone-depleted transformation support medium and introducing a nucleotide construct into cells from the embryos prior to subjecting the embryos to conditions which promote embryogenic-tissue formation. Transformation is performed using ***microprojectile*** bombardment device. The methods addnl. comprise

.beta.-glucosidase activity. The invention also presented information on: (1) the mRNA expression of .beta.-glucosidase genes in rhm1 plants before and after inoculation with a pathogen (Cochliobolus heterostrophus or Bipolaris maydis) and (2) free DIMBOA (2,4-dihydroxy-7-methoxy-1,4-benzoxazin-3-one) levels (the product of .beta.-glucosidase acting upon DIMBOA glucosides) in rhm1 verses wild-type plants.

```
=> FIL STNGUIDE
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                        18.15      18.36

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)              SINCE FILE      TOTAL
                                                           ENTRY    SESSION
CA SUBSCRIBER PRICE                                        -2.08      -2.08

FILE 'STNGUIDE' ENTERED AT 10:07:06 ON 15 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan  9, 2004 (20040109/UP).

=>
=> file agricola biosis embase caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         1.68      20.04

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)              SINCE FILE      TOTAL
                                                           ENTRY    SESSION
CA SUBSCRIBER PRICE                                         0.00      -2.08

FILE 'AGRICOLA' ENTERED AT 10:23:51 ON 15 JAN 2004

FILE 'BIOSIS' ENTERED AT 10:23:51 ON 15 JAN 2004
COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'EMBASE' ENTERED AT 10:23:51 ON 15 JAN 2004
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'CAPLUS' ENTERED AT 10:23:51 ON 15 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> s maize(w)embryo and bombardment
L2          16 MAIZE(W) EMBRYO AND BOMBARDMENT

=> duplicate remove l2
DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L2
L3          11 DUPLICATE REMOVE L2 (5 DUPLICATES REMOVED)
```